

**NODE TRANSLATION AND PROTECTION IN A CLUSTERED  
MULTIPROCESSOR SYSTEM**

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**Abstract of the Disclosure**

10 A method of node translation for communicating over virtual channels in a  
clustered multiprocessor system using connection descriptors (CDs), which specify  
the endpoint nodes for virtual connections. The system includes a local processing  
element node, a remote processing element node and a network interconnect  
therebetween for sending communications between the processing element nodes.  
The method includes assigning a CD to specify an endpoint node for a virtual  
connection, defining a local connection table (LCT) to be accessed with the CD to  
15 produce a system node identifier (SNID) of the endpoint node, generating a  
communication request including the CD, accessing the LCT using the CD of that  
communication request to produce the SNID for the endpoint node of the connection  
in response to that request, and sending a memory request to the endpoint node. The  
memory request is sent to the local processing element node if the endpoint node is  
20 the local processing element node, and is sent over the network interconnect to the  
remote processing element node if the endpoint node is the remote processing  
element node.

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